



June 17, 2005

Mr. Charles Carmel
Atlantic Richfield Company
P.O. Box 977
Alamo, CA 94507

04936
06.a2

**Re: Quarterly Groundwater Monitoring Report
Second Quarter 2005, for ARCO Service Station No. 4936
Located at 1010 Fourth Street, Santa Rosa, California**

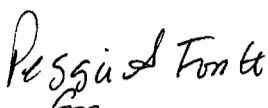
Dear Mr. Carmel:

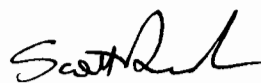
URS Corporation Americas (URS) is submitting the attached report on the behalf of Atlantic Richfield Company (ARCO – a BP affiliated company), which presents the results of the second quarter 2005 groundwater monitoring and sampling event at ARCO Service Station No. 4936, located at 1010 Fourth Street in Santa Rosa, California.

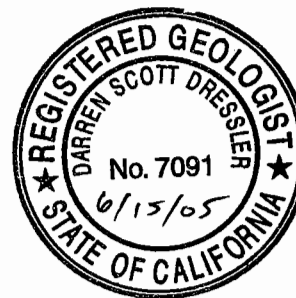
If you have any questions regarding this report, please call Mr. Scott Dressler at (530) 893-9675.

Sincerely,

URS Corporation Americas


for
Amanda Atkinson
Staff Geologist


Scott Dressler, P.G.
Project Manager



Attachment: Quarterly Groundwater Monitoring Report, Second Quarter 2005

cc: Mr. Jim Tischler, North Coast Regional Water Quality Control Board,
5550 Skylane Blvd., Suite A, Santa Rosa, CA 95403
Project File

QUARTERLY GROUNDWATER MONITORING REPORT
SECOND QUARTER 2005

ARCO Service Station No. 4936
1010 Fourth Street
Santa Rosa, California

Prepared for:
Atlantic Richfield Company

Prepared by:
URS
1550 Humboldt Road
Suite 2
Chico, California 95928

June 2005

ARCO QUARTERLY GROUNDWATER MONITORING REPORT

Former Facility No.:	4936
Address	1010 Fourth Street, Santa Rosa, California
Atlantic Richfield Co. Environmental Engineer:	Chuck Carmel
Consulting Co./Contact Person:	URS Corporation /Scott Dressler
Consultant Project No.:	38466499.0A143
Primary Agency:	North Coast Regional Water Quality Control Board

WORK PERFORMED THIS QUARTER (Second 2005):

1. Performed groundwater monitoring event.
2. Prepared and submitted groundwater monitoring report.
3. Installed three monitoring wells into lower groundwater zone and prepared installation report.

WORK PROPOSED FOR NEXT QUARTER (Third 2005):

1. Perform groundwater monitoring event.
2. Prepare and submit groundwater monitoring report.

QUARTERLY RESULTS SUMMARY (Second 2005)

Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	MW-3A, MW-4, MW-5A, MW-6 and MW-7 quarterly; MW-8, MW-9 MW-10 semi-annually (Q1, Q3); MW-2 annually (Q4)
Frequency of Groundwater Monitoring:	Quarterly
Is Free Product (FP) Present On-Site:	No
Bulk Soil Removed to Date:	600 Cubic Yards
Current Remediation Techniques:	Natural Attenuation
Approximate Depth to Groundwater:	13.20 to 14.37 feet below ground surface
Groundwater Gradient (direction):	South at approximately 0.005 feet/foot

ANALYTICAL DATA REVIEW:

Based on the review of the electronic and hardcopy data (chain-of-custody records, blanks, dilutions, holding times, LCS/LCSD results, MS/MSD results, and surrogate recoveries), the data are acceptable as reported by the laboratory with the following limitations:

- The reported results for MtBE and ethylbenzene in samples MW-5A may be biased high as demonstrated by a high surrogate recovery due to matrix interference.

DISCUSSION:

Gasoline Range Organics (GRO), ethylbenzene, total xylenes and methyl tert-butyl ether (MtBE) were reported in monitoring wells this quarter. All constituent concentrations were generally consistent with historic data. Groundwater elevations across the site generally increased relative to the previous monitoring event. The groundwater flow direction was south at an approximate gradient of 0.005 feet per foot.

This report is based on data, site conditions, and other information that are generally applicable as of the date of the report, and the conclusions and recommendations herein are therefore applicable only to that time frame.

TABLES

Table 1 Groundwater Elevation and Analytical Data

Table 2 Fuel Oxygenates Analytical Data

Table 3 Historic groundwater Gradient Data

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Figure 1 Groundwater Elevation Contours

Figure 2 Groundwater Analytical Summary

APPENDICES

Appendix A Field and Laboratory Procedures

Appendix B Laboratory Analytical Reports, Chain-of-Custody Documentation, and Field Data Sheets

Appendix C Geotracker Upload Confirmation

Tables

Table 1

Groundwater Elevation and Analytical Data

ARCO Service Station No. 4936

1010 Fourth Street, Santa Rosa, CA

Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Comments
MW-1	6/12/1996	--	175.04	16.26	158.78	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/1/1996	--	175.04	19.14	155.90	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	11/27/1996	--	175.04	19.08	155.96	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	4/2/1997	--	175.04	16.88	158.16	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/19/1997	--	175.04	18.37	156.67	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/3/1997	--	175.04	19.43	155.61	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/8/1997	--	175.04	16.76	158.28	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	2/24/1998	--	175.04	11.00	164.04	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	5/29/1998	--	175.04	15.73	159.31	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/25/1998	NP	175.04	18.21	156.83	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/1/1998	--	175.04	18.86	156.18	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	[5]
	2/5/1999	--	175.04	16.50	158.54	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	5/6/1999	--	175.04	15.82	159.22	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/17/1999	--	175.04	19.19	155.85	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/2/1999	NP	175.04	18.62	156.42	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	3/21/2000	--	175.04	14.72	160.32	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	4/27/2000	--	175.04	15.95	159.09	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/21/2000	--	175.04	19.36	155.68	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	11/22/2000	NP	175.04	19.41	155.63	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	3/21/2001	--	175.04	16.29	158.75	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/28/2001	--	175.04	19.34	155.70	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/18/2001	--	175.04	20.22	154.82	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/28/2001	--	175.04	15.00	160.04	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	
	3/27/2002	--	175.04	15.91	159.13	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/19/2002	--	175.04	18.66	156.38	NS	--	NS	NS	NS	NS	NS	--	Not sampled, [7]
	9/13/2002	--	175.04	20.10	154.94	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/11/2002	P	175.04	19.73	155.31	ND<50.0	--	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	--	
	03/25/2003	P	175.04	15.83	159.21	--	--	--	--	--	--	--	--	Not Sampled
	05/01/2003	--	175.04	15.68	159.36	--	--	--	--	--	--	--	--	Not Sampled
	07/15/2003	--	175.04	18.54	156.50	--	--	--	--	--	--	--	--	Not Sampled
	10/06/2003	--	--	--	--	--	--	--	--	--	--	--	--	Well Abandoned
MW-2	3/15/1996	--	173.8	13.03	160.77	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/12/1996	--	173.8	14.99	158.81	NS	--	NS	NS	NS	NS	NS	--	Not sampled

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1010 Fourth Street, Santa Rosa, CA

Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Comments
MW-2	9/1/1996	--	173.8	17.87	155.93	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	11/27/1996	--	173.8	17.81	155.99	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	56	--	
	4/2/1997	--	173.8	15.70	158.10	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/19/1997	--	173.8	17.13	156.67	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/3/1997	--	173.8	--	--	NS	--	NS	NS	NS	NS	NS	--	Not sampled, Dry
	12/8/1997	--	173.8	15.53	158.27	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	[5]
	2/24/1998	--	173.8	10.88	162.92	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	5/29/1998	--	173.8	14.47	159.33	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/25/1998	NP	173.8	17.15	156.65	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/1/1998	--	173.8	17.61	156.19	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	2/5/1999	--	173.8	15.25	158.55	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	5/6/1999	--	173.8	14.53	159.27	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/17/1999	--	173.8	17.96	155.84	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/2/1999	NP	173.8	17.38	156.42	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	3/21/2000	--	173.8	13.55	160.25	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	4/27/2000	--	173.8	15.07	158.73	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/21/2000	--	173.8	--	--	NS	--	NS	NS	NS	NS	NS	--	Not sampled, Dry
	11/22/2000	NP	173.8	18.22	155.58	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	3/21/2001	--	173.8	15.44	158.36	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/28/2001	--	173.8	18.11	155.69	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/18/2001	--	173.8	19.06	154.74	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/28/2001	P	173.8	13.80	160.00	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	
	3/27/2002	--	173.8	14.65	159.15	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/19/2002	--	173.8	17.42	156.38	NS	--	NS	NS	NS	NS	NS	--	Not sampled, [7]
	9/13/2002	--	173.8	18.87	154.93	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/11/2002	P	173.8	18.50	155.30	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1.00	ND<5.00	--	
	03/25/2003	P	173.80	14.64	159.16	--	--	--	--	--	--	--	--	Not Sampled
	05/01/2003	--	173.80	14.44	159.36	--	--	--	--	--	--	--	--	Not Sampled
	07/15/2003	--	173.80	17.28	156.52	--	--	--	--	--	--	--	--	Not Sampled
	12/24/2003	--	173.80	--	--	--	--	--	--	--	--	--	--	Well Inaccessible
	03/09/2004	--	176.12	13.18	162.94	--	--	--	--	--	--	--	--	Not Sampled
	04/13/2004	--	176.12	15.75	160.37	--	--	--	--	--	--	--	--	Not Sampled
	07/12/2004	--	176.12	17.71	158.41	--	--	--	--	--	--	--	--	Not Sampled

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1010 Fourth Street, Santa Rosa, CA

Well Number	Date Sampled	P/	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L)	DO (mg/L)	Comments
MW-2	11/29/2004	P	176.12	17.57	158.55	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	3.7	
	01/26/2005	--	176.12	14.17	161.95	--	--	--	--	--	--	--	--	Not Sampled
	04/04/2005	--	176.12	13.30	162.82	--	--	--	--	--	--	--	--	Not Sampled
MW-3	3/15/1996	--	174.79	14.07	160.72	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/12/1996	--	174.79	16.10	158.69	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/1/1996	--	174.79	18.98	155.81	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	11/27/1996	--	174.79	18.92	155.87	2,400	--	61	170	70	380	ND<2.5	--	
	4/2/1997	--	174.79	16.70	158.09	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/19/1997	--	174.79	18.18	156.61	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/3/1997	NP	174.79	19.23	155.56	1,100	--	ND<10	ND<10	120	45	1,200(1,200)	--	[4]
	12/8/1997	NP	174.79	16.59	158.20	ND<50	--	ND<0.5	ND<0.5	3.5	1.7	42	--	
	2/24/1998	NP	174.79	11.17	163.62	9,000	--	ND<5	23	370	860	490	--	
	5/29/1998	--	174.79	15.60	159.19	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	8/25/1998	NP	174.79	18.21	156.58	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	11/20/1998	NP	174.79	18.62	156.17	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	2/5/1999	NP	174.79	16.33	158.46	ND<50	--	ND<0.5	ND<0.5	ND<0.5	0.8	5	--	
	5/6/1999	NP	174.79	15.67	159.12	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4	--	
	9/17/1999	NP	174.79	18.98	155.81	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	12/2/1999	NP	174.79	18.30	156.49	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	3/21/2000	NP	174.79	14.66	160.13	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	22	--	
	4/27/2000	NP	174.79	15.84	158.95	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	5	--	
	8/21/2000	NP	174.79	19.24	155.55	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	5	--	
	11/22/2000	NP	174.79	19.27	155.52	1,150	--	ND<0.5	10.5	15.6	0.97	3.44	--	
	3/21/2001	P	174.79	15.17	159.62	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.13	--	
	6/28/2001	NP	174.79	19.20	155.59	55	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	[1]
	6/28/2001	P	174.79	19.20	155.59	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	
	9/18/2001	P	174.79	20.13	154.66	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	
	12/28/2001	P	174.79	14.95	159.84	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	29	--	
	3/27/2002	P	174.79	15.80	158.99	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.1	--	
	6/19/2002	--	174.79	18.50	156.29	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	[7]
	9/13/2002	P	174.79	19.94	154.85	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	12/11/2002	P	174.79	19.57	155.22	ND<50.0	--	ND<0.500	ND<0.500	ND<0.500	ND<1.00	ND<5.00	--	
	03/25/2003	P	174.79	15.62	159.17	<50	--	<0.50	<0.50	<0.50	<0.50	5.8	--	

Table 1

Groundwater Elevation and Analytical Data
 ARCO Service Station No. 4936
 1010 Fourth Street, Santa Rosa, CA

Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L)	DO (mg/L)	Comments
MW-3	05/01/2003	P	174.79	15.47	159.32	<50	--	<0.50	<0.50	<0.50	<0.50	1.9	2.5	
	07/15/2003	P	174.79	18.29	156.50	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	5.0	
	10/06/2003	--	--	--	--	--	--	--	--	--	--	--	--	Well Abandoned
MW-3A	03/09/2004	P	177.09	14.31	162.78	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	5.0	
	04/13/2004	P	177.09	15.76	161.33	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	
	07/12/2004	P	177.09	18.79	158.30	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	3.7	
	11/29/2004	P	177.09	18.62	158.47	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	4.9	
	01/26/2005	P	177.09	15.03	162.06	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	8.1	
	04/04/2005	P	177.09	14.37	162.72	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	5.5	
MW-4	3/15/1996	--	173.6	12.76	160.84	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	--	
	6/12/1996	--	173.6	14.86	158.74	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	9/1/1996	--	173.6	17.17	156.43	250	--	43	ND<0.5	23	11	1,200	--	
	11/27/1996	--	173.6	17.11	156.49	660	--	2.4	4.6	38	130	290	--	
	4/2/1997	NP	173.6	14.90	158.70	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	6/19/1997	NP	173.6	16.97	156.63	ND<50	--	ND<1	ND<0.5	1.5	5.6	18	--	
	9/3/1997	NP	173.6	18.05	155.55	200	--	4.1	0.9	19	29	36	--	
	12/8/1997	NP	173.6	15.36	158.24	52	--	1.4	ND<0.5	0.6	3.9	16	--	
	2/24/1998	NP	173.6	10.88	162.72	ND<50	--	ND<0.5	1.2	ND<0.5	2	1.2	--	
	5/29/1998	NP	173.6	14.32	159.28	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	8/25/1998	NP	173.6	17.00	156.60	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	11/20/1998	NP	173.6	17.42	156.18	ND<50	--	ND<0.5	ND<0.5	ND<0.5	0.5	12	--	
	2/5/1999	NP	173.6	15.10	158.50	ND<50	--	0.9	0.6	2	2.1	ND<3	--	
	5/6/1999	NP	173.6	14.41	159.19	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	9/17/1999	NP	173.6	17.78	155.82	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	12/2/1999	NP	173.6	17.18	156.42	89	--	ND<0.5	1.9	2.5	1.6	ND<3	--	
	3/21/2000	NP	173.6	13.41	160.19	ND<50	--	ND<0.5	0.8	ND<0.5	ND<1	ND<3	--	
	4/27/2000	NP	173.6	14.57	159.03	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	8/21/2000	NP	173.6	18.01	155.59	ND<50	--	ND<0.5	ND<0.5	2.5	ND<1	8	--	
	11/22/2000	NP	173.6	18.09	155.51	707	--	3.12	15.1	53.6	71.2	17.1	--	
	3/21/2001	P	173.6	14.90	158.70	104	--	0.935	ND<0.5	7.55	11.2	ND<2.50	--	
	6/28/2001	NP	173.6	17.98	155.62	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	
	6/28/2001	P	173.6	17.98	155.62	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	

Table 1

Groundwater Elevation and Analytical Data
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 1010 Fourth Street, Santa Rosa, CA

Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L)	DO (mg/L)	Comments
MW-4	9/18/2001	P	173.6	18.88	154.72	130	--	13	11	3.7	18	ND<5.0	--	
	12/28/2001	P	173.6	13.70	159.90	66	--	0.91	2.2	0.66	2.2	21	--	
	3/27/2002	P	173.6	14.61	158.99	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	--	
	6/19/2002	--	173.6	17.30	156.30	250	--	1.8	0.62	34	13	3.8	--	[7]
	9/13/2002	P	173.6	18.72	154.88	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	12/11/2002	P	173.6	18.37	155.23	160	--	1.32	ND<0.500	9.93	8.6	ND<5.00	--	
	03/25/2003	P	173.60	14.52	159.08	<50	--	<0.50	<0.50	<0.50	<0.50	3.0	--	
	05/01/2003	P	173.60	14.33	159.27	<50	--	<0.50	<0.50	<0.50	<0.50	1.5	1.5	
	07/15/2003	P	173.60	16.85	156.75	110 R	--	<2.5	<2.5	13	<2.5	150	2.3	
	12/24/2003	--	173.60	--	--	--	--	--	--	--	--	--	--	Well Inaccessible
	03/09/2004	P	176.40	13.55	162.85	<50	--	<0.50	<0.50	<0.50	<0.50	0.58	4.3	
	04/13/2004	P	176.40	15.11	161.29	<50	--	<0.50	<0.50	<0.50	<0.50	1.0	--	
	07/12/2004	P	176.40	18.00	158.40	<50	--	<0.50	<0.50	<0.50	<0.50	2.3	3.6	
	11/29/2004	P	176.40	17.95	158.45	<50	--	<0.50	<0.50	<0.50	<0.50	0.93	2.0	
	01/26/2005	P	176.40	14.44	161.96	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	1.58	
	04/04/2005	P	176.40	13.58	162.82	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	3.9	
MW-5	3/15/1996	--	174.17	13.55	160.62	630	--	16	0.95	6.1	3.6	NA	--	
	6/12/1996	--	174.17	15.58	158.59	590	--	22	1.1	8.7	4.6	ND<2.5	--	
	9/1/1996	--	174.17	17.83	156.34	2,800	--	130	15	27	27	300	--	
	11/27/1996	--	174.17	17.78	156.39	3,900	--	59	35	20	20	86	--	
	4/2/1997	NP	174.17	15.64	158.53	140	--	3.5	0.52	ND<0.5	ND<0.5	7.3	--	
	6/19/1997	NP	174.17	17.65	156.52	230	--	4.2	0.7	0.7	ND<0.5	ND<10	--	
	9/3/1997	NP	174.17	18.71	155.46	1,700	--	140	ND<10	ND<10	ND<10	420	--	
	12/8/1997	NP	174.17	16.03	158.14	<200	--	9	ND<2	ND<2	8	140	--	
	2/24/1998	NP	174.17	10.74	163.43	400	--	8	3.1	5.9	9.1	14	--	
	5/29/1998	NP	174.17	15.08	159.09	130	--	1.6	ND<0.5	ND<0.5	1.9	ND<0.5	--	
	8/25/1998	NP	174.17	17.65	156.52	110	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	11/20/1998	NP	174.17	18.08	156.09	3,000	--	74	5	8	7	36	--	
	2/5/1999	NP	174.17	15.81	158.36	170	--	2.9	0.9	ND<0.5	0.5	ND<3	--	
	5/6/1999	NP	174.17	15.18	158.99	<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	9/17/1999	NP	174.17	18.42	155.75	1,800	--	52	2.6	2.6	3.2	13	--	
	12/2/1999	NP	174.17	17.82	156.35	2,300	--	55	5.2	3.2	8.8	11	--	
	3/21/2000	NP	174.17	14.20	159.97	420	--	7	2.9	1.8	5.5	7	--	

Table 1

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1010 Fourth Street, Santa Rosa, CA

Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Comments
MW-5	4/27/2000	NP	174.17	15.33	158.84	1,000	--	10	2.9	1.1	8.2	7	--	
	8/21/2000	NP	174.17	18.68	155.49	370	--	15	1.5	1.1	2	7	--	
	11/22/2000	NP	174.17	18.55	155.62	3,840	--	27.8	24.4	14.7	14.4	33.6	--	
	3/21/2001	P	174.17	15.68	158.49	5,550	--	19.4	37.6	53	29.5	197 (ND<10)	--	[4]
	6/28/2001	NP	174.17	18.68	155.49	5,900	--	59	8.4	22	17	ND<50	--	
	6/28/2001	P	174.17	18.68	155.49	NS	--	NS	NS	NS	NS	NS	--	Sheen, Not sampled
	9/18/2001	P	174.17	18.79	155.38	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	12/28/2001	P	174.17	NM	--	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/27/2002	P	174.17	15.31	158.86	2,700	--	15	7	14	11	0.82	--	
	6/19/2002	--	174.17	17.97	156.20	490	--	3.3	1.1	6.7	1	ND<5.0	--	[7]
	9/13/2002	P	174.17	19.34	154.38	720	--	1.6	2.5	6.1	3.7	27	--	
	12/11/2002	P	174.17	19.03	155.14	2,160	--	7.72	2.01	7.52	18.0	6.36(ND<1.00)	--	[4], [6]
	03/25/2003	P	174.17	14.53	159.64	4,200	--	3.2	<2.5	7.4	5.5	3.2	--	
	05/01/2003	P	174.17	15.08	159.09	950	--	4.7	1.4	2.8	4.5	0.78	2.1	
	07/15/2003	P	174.17	17.74	156.43	1,700 R	--	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	
	10/06/2003	--	--	--	--	--	--	--	--	--	--	--	--	Well Abandoned
MW-5A	03/09/2004	P	176.59	13.97	162.62	120	--	<0.50	<0.50	1.7	<0.50	1.5	2.5	
	04/13/2004	P	176.59	15.40	161.19	<50	--	<0.50	<0.50	<0.50	<0.50	0.80	--	
	07/12/2004	P	176.59	18.34	158.25	<50	--	<0.50	<0.50	<0.50	<0.50	3.0	4.5	
	11/29/2004	P	176.59	18.19	158.40	<50	--	<0.50	<0.50	<0.50	<0.50	3.8	3.9	
	01/26/2005	P	176.59	14.68	161.91	330	--	<0.50	<0.50	1.1	<0.50	2.0	7.3	
	04/04/2005	P	176.59	14.02	162.57	260	--	<0.50	<0.50	0.74 J	<0.50	0.96 J	2.0	
MW-6	3/15/1996	--	174.34	13.63	160.71	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	--	
	6/12/1996	--	174.34	15.69	158.65	ND<50	--	0.75	ND<0.5	0.68	ND<0.5	ND<2.5	--	
	9/1/1996	--	174.34	17.99	156.35	130	--	4.7	0.82	4.4	2	36	--	
	11/27/1996	--	174.34	17.93	156.41	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	4/2/1997	NP	174.34	15.74	158.60	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	6/19/1997	NP	174.34	17.79	156.55	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	9/3/1997	NP	174.34	18.84	155.50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	12/8/1997	NP	174.34	16.18	158.16	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	2/24/1998	NP	174.34	10.79	163.55	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	
	5/29/1998	NP	174.34	15.18	159.16	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	

Table 1

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Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Comments
MW-6	8/25/1998	NP	174.34	17.80	156.54	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	11/20/1998	NP	174.34	18.24	156.10	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	2/5/1999	NP	174.34	15.91	158.43	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	5/6/1999	NP	174.34	15.27	159.07	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	9/17/1999	NP	174.34	18.58	155.76	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	12/2/1999	NP	174.34	18.00	156.34	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	3/21/2000	NP	174.34	14.28	160.06	ND<50	--	ND<0.5	0.6	ND<0.5	ND<1	ND<3	--	
	4/27/2000	NP	174.34	15.42	158.92	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	8/21/2000	NP	174.34	18.81	155.53	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	11/22/2000	NP	174.34	18.90	155.44	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	3/21/2001	P	174.34	15.78	158.56	1,490	--	15.1	20.6	52.1	10.8	119	--	
	6/28/2001	NP	174.34	18.80	155.54	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	
	6/28/2001	P	174.34	18.80	155.54	3,300	--	ND<5.0	7.7	5.2	8.8	ND<50	--	
	9/18/2001	P	174.34	19.70	154.64	1,000	--	14	7.9	8	16	ND<10	--	[2]
	12/28/2001	P	174.34	14.52	159.82	180	--	1.8	ND<0.50	3.5	0.66	ND<5.0	--	[3]
	3/27/2002	P	174.34	15.39	158.95	180	--	1.1	ND<0.50	2	0.74	ND<0.50	--	
	6/19/2002	--	174.34	18.10	156.24	640	--	4.6	ND<1.0	3.3	2.3	16	--	[7]
	9/13/2002	P	174.34	19.53	154.81	310	--	2.8	0.83	NDND<0.5	0.99	4	--	
	12/11/2002	P	174.34	19.28	155.06	618	--	1.85	0.615	5.9	4.56	ND<5.00	--	
	03/25/2003	P	174.34	15.39	158.95	830	--	0.58	<0.50	0.50	0.55	0.87	--	
	05/01/2003	P	174.34	15.16	159.18	220	--	1.2	0.60	3.7	1.2	0.67	2.8	
	07/15/2003	P	174.34	17.96	156.38	130	--	<0.50	<0.50	1.0	<0.50	<0.50	2.3	
	12/24/2003	P	174.34	16.67	157.67	350	--	<2.5	<2.5	5.9	6.7	<2.5	2.1	
	03/09/2004	P	176.22	13.48	162.74	150	--	<0.50	<0.50	2.0	0.53	<0.50	2.3	
	04/13/2004	P	176.22	15.02	161.20	97	--	<0.50	<0.50	0.85	<0.50	<0.50	--	
	07/12/2004	P	176.22	17.90	158.32	290	--	1.2	0.53	1.1	1.8	<0.50	1.8	
	11/29/2004	P	176.22	17.79	158.43	1,000	--	19	3.9	30	22	<0.50	1.4	
	01/26/2005	P	176.22	14.26	161.96	130	--	<0.50	<0.50	1.3	1.1	<0.50	1.66	
	04/04/2005	P	176.22	13.51	162.71	64	--	<0.50	<0.50	<0.50	<0.50	<0.50	2.5	
MW-7	3/15/1996	--	173.48	12.74	160.74	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/12/1996	--	173.48	14.80	158.68	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/1/1996	--	173.48	17.68	155.80	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	11/27/1996	--	173.48	17.08	156.40	2,200	--	30	110	64	460	2,600	--	

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Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Comments
MW-7	4/2/1997	--	173.48	14.83	158.65	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	6/19/1997	--	173.48	16.95	156.53	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/3/1997	NP	173.48	17.95	155.53	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	--	
	12/8/1997	NP	173.48	15.34	158.14	320	--	ND<0.5	ND<0.5	3.8	37	90	--	
	2/24/1998	NP	173.48	10.34	163.14	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	39	--	
	5/29/1998	NP	173.48	14.43	159.05	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	8/25/1998	NP	173.48	16.98	156.50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	11/20/1998	NP	173.48	17.32	156.16	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	2/5/1999	NP	173.48	15.11	158.37	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	5/6/1999	NP	173.48	14.50	158.98	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	9/17/1999	NP	173.48	17.67	155.81	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	12/2/1999	NP	173.48	17.07	156.41	74	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	3/21/2000	NP	173.48	13.61	159.87	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	3	--	
	4/27/2000	NP	173.48	14.69	158.79	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	8/21/2000	NP	173.48	18.02	155.46	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	11/22/2000	NP	173.48	18.07	155.41	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	3/21/2001	P	173.48	15.02	158.46	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	6/28/2001	NP	173.48	18.02	155.46	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	6/28/2001	P	173.48	18.02	155.46	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	--	
	9/18/2001	P	173.48	18.91	154.57	100	--	20	9.5	2.8	14	ND<5.0	--	
	12/28/2001	P	173.48	13.79	159.69	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.8	--	
	3/27/2002	P	173.48	14.66	158.82	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.50	--	
	6/19/2002	--	173.48	17.28	156.20	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	[7]
	9/13/2002	P	173.48	18.70	154.78	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	12/11/2002	P	173.48	18.36	155.12	ND<50	--	2.08	ND<0.50	ND<0.50	ND<1.0	ND<5.0	--	
	03/25/2003	P	173.48	14.60	158.88	<50	--	<0.50	<0.50	<0.50	<0.50	0.61	--	
	05/01/2003	P	173.48	14.45	159.03	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	
	07/15/2003	P	173.48	17.10	156.38	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	
	12/24/2003	--	173.48	--	--	--	--	--	--	--	--	--	--	Well Inaccessible
	03/09/2004	P	175.94	13.38	162.56	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	3.2	
	04/13/2004	P	175.94	14.88	161.06	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	
	07/12/2004	P	175.94	17.62	158.32	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	
	11/29/2004	P	175.94	17.25	158.69	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	2.9	

Table 1

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Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPH (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Comments
MW-7	01/26/2005	P	175.94	14.11	161.83	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	6.3	
	04/04/2005	P	175.94	13.43	162.51	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	4.3	
MW-8	3/15/1996	--	172.36	13.31	159.05	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	--	
	6/12/1996	--	172.36	15.36	157.00	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/1/1996	--	172.36	16.61	155.75	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	11/27/1996	--	172.36	16.57	155.79	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	4/2/1997	NP	172.36	14.40	157.96	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	6/19/1997	--	172.36	16.43	155.93	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/3/1997	NP	172.36	17.47	154.89	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	12/8/1997	--	172.36	14.64	157.72	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	2/24/1998	NP	172.36	9.82	162.54	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	
	5/29/1998	--	172.36	13.84	158.52	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/25/1998	NP	172.36	16.42	155.94	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	11/20/1998	--	172.36	16.85	155.51	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	2/5/1999	NP	172.36	14.64	157.72	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	5/6/1999	--	172.36	14.08	158.28	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/17/1999	NP	172.36	17.20	155.16	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	12/2/1999	NP	172.36	16.56	155.80	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/21/2000	NP	172.36	13.03	159.33	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	4/27/2000	--	172.36	14.28	158.08	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/21/2000	NP	172.36	17.48	154.88	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	11/22/2000	--	172.36	17.47	154.89	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/21/2001	P	172.36	14.58	157.78	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	6/28/2001	--	172.36	17.50	154.86	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/18/2001	P	172.36	18.33	154.03	400	--	66	46	14	61	ND<10	--	
	12/28/2001	--	172.36	13.28	159.08	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/27/2002	P	172.36	14.17	158.19	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.50	--	
	6/19/2002	--	172.36	16.70	155.66	NS	--	NS	NS	NS	NS	NS	--	Not sampled, [7]
	9/13/2002	P	172.36	18.40	153.96	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	12/11/2002	--	172.36	17.82	154.54	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	03/25/2003	--	172.36	14.11	158.25	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	
	05/01/2003	--	172.36	13.87	158.49	--	--	--	--	--	--	--	--	Not Sampled
	07/15/2003	P	172.36	16.65	155.71	<50	--	1.7	0.57	0.98	3.5	1.0	4.8	

Table 1

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Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Comments
MW-8	12/24/2003	--	172.36	14.90	157.46	--	--	--	--	--	--	--	--	Not Sampled
	03/09/2004	P	175.49	13.24	162.25	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	4.2	
	04/13/2004	--	175.49	15.72	159.77	--	--	--	--	--	--	--	--	Not Sampled
	07/12/2004	P	175.49	17.50	157.99	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	3.4	
	11/29/2004	--	175.49	17.33	158.16	--	--	--	--	--	--	--	--	Not Sampled
	01/26/2005	P	175.49	13.92	161.57	<50	--	<0.50	<0.50	<0.50	0.52 J	<0.50	7.8	
	04/04/2005	--	175.49	13.24	162.25	--	--	--	--	--	--	--	--	Not Sampled
MW-9A	3/15/1996	--	172.71	12.23	160.48	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	--	
	6/12/1996	--	172.71	14.02	158.69	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/1/1996	--	172.71	16.80	155.91	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	11/27/1996	--	172.71	16.19	156.52	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	4/2/1997	NP	172.71	13.98	158.73	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	6/19/1997	--	172.71	NM	NM	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/3/1997	NP	172.71	16.99	155.72	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	12/8/1997	--	172.71	14.42	158.29	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	2/24/1998	NP	172.71	9.54	163.17	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	
	5/29/1998	--	172.71	13.62	159.09	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/25/1998	NP	172.71	16.02	156.69	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	11/20/1998	--	172.71	16.32	156.39	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	2/5/1999	NP	172.71	14.25	158.46	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	5/6/1999	--	172.71	13.76	158.95	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/17/1999	NP	172.71	16.63	156.08	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	
	12/2/1999	NP	172.71	16.01	156.70	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/21/2000	NP	172.71	13.07	159.64	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	17	--	
	4/27/2000	--	172.71	14.14	158.57	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/21/2000	NP	172.71	17.27	155.44	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<3	--	
	11/22/2000	--	172.71	17.30	155.41	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/21/2001	P	172.71	14.44	158.27	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	
	6/28/2001	--	172.71	17.27	155.44	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/18/2001	P	172.71	18.06	154.65	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
	12/28/2001	--	172.71	13.30	159.41	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/27/2002	P	172.71	14.07	158.64	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	
	6/19/2002	--	172.71	16.50	156.21	NS	--	NS	NS	NS	NS	NS	--	Not sampled, [7]

Table 1

Groundwater Elevation and Analytical Data

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Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Comments
MW-9A	9/13/2002	P	172.71	17.90	154.81	ND<50	--	ND<0.5	ND<0.5	NS	NS	ND<2.5	--	Not sampled
	12/11/2002	--	172.71	17.65	155.06	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	03/25/2003	--	172.71	14.03	158.68	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	--	Not sampled
	05/01/2003	--	172.71	13.79	158.92	--	--	--	--	--	--	--	--	Not sampled
	07/15/2003	P	172.71	16.48	156.23	<50	--	2.1	0.85	1.2	3.3	<0.50	3.2	Not sampled
	12/24/2003	--	172.71	14.86	157.85	--	--	--	--	--	--	--	--	Not sampled
	03/09/2004	P	175.16	13.07	162.09	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	4.3	Not sampled
	04/13/2004	--	175.16	15.66	159.50	--	--	--	--	--	--	--	--	Not sampled
	07/12/2004	P	175.16	17.32	157.84	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	4.1	Not sampled
	11/29/2004	--	175.16	17.24	157.92	--	--	--	--	--	--	--	--	Not sampled
	01/26/2005	P	175.16	14.48	160.68	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	8.2	Not sampled
	04/04/2005	--	175.16	13.20	161.96	--	--	--	--	--	--	--	--	Not sampled
MW-10	3/15/1996	--	173.42	12.71	160.71	1,500	--	ND<5.0	ND<5.0	28	5.1	NA	--	Not sampled
	6/12/1996	--	173.42	14.50	158.92	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/1/1996	--	173.42	16.91	156.51	3,000	--	12	ND<5.0	9.3	ND<5.0	ND<25	--	Not sampled
	11/27/1996	--	173.42	16.59	156.83	2,000	--	9.7	3.3	6.7	3.8	10	--	Not sampled
	4/2/1997	NP	173.42	14.33	159.09	2,000	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	Not sampled
	6/19/1997	NP	173.42	16.46	156.96	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/3/1997	NP	173.42	17.60	155.82	3,500	--	ND<5	ND<5	ND<5	ND<5	ND<30	--	Not sampled
	12/8/1997	NP	173.42	14.86	158.56	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	2/24/1998	NP	173.42	10.16	163.26	810	--	ND<1	2	7	5	ND<0.5	--	Not sampled
	5/29/1998	--	173.42	13.80	159.62	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/25/1998	--	173.42	16.46	156.96	2,100	--	ND<5	ND<5	ND<5	ND<5	71	--	Not sampled
	11/20/1998	--	173.42	17.00	156.42	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	2/5/1999	--	173.42	14.30	159.12	130	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	Not sampled
	5/6/1999	--	173.42	14.06	159.36	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/17/1999	NP	173.42	17.50	155.92	2,200	--	ND<0.5	0.9	1.1	1.2	ND<3	--	Not sampled
	12/2/1999	--	173.42	16.72	156.70	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/21/2000	NP	173.42	13.20	160.22	1,100	--	ND<0.5	2.2	1	1.7	ND<3	--	Not sampled
	4/27/2000	--	173.42	14.14	159.28	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	8/21/2000	--	173.42	17.33	156.09	1,600	--	ND<0.5	ND<0.5	2.3	1.6	ND<3	--	Not sampled
	11/22/2000	--	173.42	17.30	156.12	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/21/2001	P	173.42	14.36	159.06	1,310	--	ND<1.25	ND<1.25	2.22	1.6	ND<6.25	--	Not sampled

Table 1

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Well Number	Date Sampled	P/ NP	TOC Elevation (feet msl)	Depth to Water (feet bgs)	Water Level Elevation (feet msl)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Comments
MW-10	6/28/2001	--	173.42	16.95	156.47	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	9/18/2001	P	173.42	18.23	155.19	2,100	--	82	63	22	95	ND<25	--	
	12/28/2001	--	173.42	13.37	160.05	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	3/27/2002	P	173.42	14.05	159.37	1,500	--	ND<0.50	0.82	1.5	ND<0.50	ND<1.2	--	
	6/19/2002	--	173.42	16.13	157.29	NS	--	NS	NS	NS	NS	NS	--	Not sampled, [7]
	9/13/2002	P	173.42	17.60	155.82	450	--	1.2	NDND<1	NDND<1	1.6	18	--	
	12/11/2002	--	173.42	17.25	156.17	NS	--	NS	NS	NS	NS	NS	--	Not sampled
	03/25/2003	--	173.42	0.00	173.42	620	--	<0.50	<0.50	<0.50	0.54	<0.50	--	
	05/01/2003	--	173.42	14.01	159.41	--	--	--	--	--	--	--	--	Not Sampled
	07/15/2003	P	173.42	16.04	157.38	360	--	<1.0	<1.0	1.3	3.5	<1.0	2.6	
	12/24/2003	--	173.42	14.81	158.61	--	--	--	--	--	--	--	--	Not Sampled
	03/09/2004	P	176.18	13.21	162.97	280	--	<0.50	<0.50	<0.50	<0.50	<0.50	3.3	
	04/13/2004	--	176.18	15.73	160.45	--	--	--	--	--	--	--	--	Not Sampled
	07/12/2004	P	176.18	17.41	158.77	760 J	--	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	
	11/29/2004	--	176.18	17.30	158.88	--	--	--	--	--	--	--	--	Not Sampled
	01/26/2005	P	176.18	14.06	162.12	720	--	<0.50	<0.50	<0.50	<0.50	<0.50	6.5	
	04/04/2005	--	176.18	13.29	162.89	--	--	--	--	--	--	--	--	Not Sampled

Table 1

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TPH = Total petroleum hydrocarbons

MtBE = Methyl Tertiary Butyl Ether

mg/L = Micrograms per liter

NP = No Purge

P = Purge

MSL = Mean Sea Level

TOC = Top of Casing

NA = Not analyzed

NM = Not monitored

NS = Not sampled

ND = Not Detected

-- = not measured or analyzed

[1] = Chromatogram Pattern; Unidentified Hydrocarbons C6-C12

[2] = The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

[3] = Chromatogram Pattern: Weathered Gasoline C6 - C12

[4] = Confirmed by using EPA Method 8260

[5] = Depth to water measured 11/20/98

[6] = The analyte concentration maybe artificially elevated due to coeluting compounds or components

[7] = Analyzed by gasoline range organics (GRO) beginning second quarter 2002.

Source : The data within this table collected prior to June 2002 was provided to URS by BP Group Environmental Management Company and their previous consultants. URS has not verified the accuracy of this information.

Table 2

Fuel Oxygenates Analytical Data

ARCO Service Station No. 4936

1010 Fourth Street, Santa Rosa, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	Comments
MW-1	03/25/2003	--	--	--	--	--	--	Not Sampled
	05/01/2003	--	--	--	--	--	--	Not Sampled
	07/15/2003	--	--	--	--	--	--	Not Sampled
	10/06/2003	--	--	--	--	--	--	Well Abandoned
MW-2	03/25/2003	--	--	--	--	--	--	Not Sampled
	05/01/2003	--	--	--	--	--	--	Not Sampled
	07/15/2003	--	--	--	--	--	--	Not Sampled
	12/24/2003	--	--	--	--	--	--	Well Inaccessible
	03/09/2004	--	--	--	--	--	--	Not Sampled
	04/13/2004	--	--	--	--	--	--	Not Sampled
	07/12/2004	--	--	--	--	--	--	Not Sampled
	11/29/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	
	01/26/2005	--	--	--	--	--	--	
	04/04/2005	--	--	--	--	--	--	
MW-3	03/25/2003	130	<20	5.8	<0.50	<0.50	<0.50	
	05/01/2003	<100	<20	1.9	<0.50	<0.50	<0.50	
	07/15/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	
	10/06/2003	--	--	--	--	--	--	Well Abandoned
MW-3A	03/09/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/13/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	07/12/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	11/29/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	
	01/26/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/04/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
MW-4	03/25/2003	<100	<20	3.0	<0.50	<0.50	<0.50	
	05/01/2003	<100	<20	1.5	<0.50	<0.50	<0.50	
	07/15/2003	<500	<100	150	<5.0	<5.0	<5.0	
	12/24/2003	--	--	--	--	--	--	Well Inaccessible
	03/09/2004	<100	<20	0.58	<1.0	<1.0	<1.0	
	04/13/2004	<100	<20	1.0	<1.0	<1.0	<1.0	
	07/12/2004	<100	<20	2.3	<1.0	<1.0	<1.0	
	11/29/2004	<100	<20	0.93	<0.50	<0.50	<0.50	
	01/26/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/04/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
MW-5	03/25/2003	<500	<100	3.2	<2.5	<2.5	<2.5	
	05/01/2003	<100	<20	0.78	<0.50	<0.50	<0.50	
	07/15/2003	<200	<40	<1.0	<2.0	<2.0	<2.0	
	10/06/2003	--	--	--	--	--	--	Well Abandoned
MW-5A	03/09/2004	<100	<20	1.5	<1.0	<1.0	<1.0	
	04/13/2004	<100	<20	0.80	<1.0	<1.0	<1.0	
	07/12/2004	<100	<20	3.0	<1.0	<1.0	<1.0	
	11/29/2004	<100	<20	3.8	<0.50	<0.50	<0.50	
	01/26/2005	<100	<20	2.0	<1.0	<1.0	<1.0	
	04/04/2005	<100	<20	0.96 J	<1.0	<1.0	<1.0	
MW-6	03/25/2003	<100	<20	0.87	<0.50	<0.50	<0.50	
	05/01/2003	<100	<20	0.67	<0.50	<0.50	<0.50	

Table 2

Fuel Oxygenates Analytical Data
 ARCO Service Station No. 4936
 1010 Fourth Street, Santa Rosa, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	Comments
MW-6	07/15/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	
	12/24/2003	<500	<100	<2.5	<5.0	<5.0	<5.0	
	03/09/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/13/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	07/12/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	11/29/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	
	01/26/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/04/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
MW-7	03/25/2003	<100	<20	0.61	<0.50	<0.50	<0.50	
	05/01/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	
	07/15/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	
	12/24/2003	--	--	--	--	--	--	Well Inaccessible
	03/09/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/13/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	07/12/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	11/29/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	
	01/26/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/04/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
MW-8	03/25/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	
	05/01/2003	--	--	--	--	--	--	Not Sampled
	07/15/2003	<100	<20	1.0	<1.0	<1.0	<1.0	
	12/24/2003	--	--	--	--	--	--	Not Sampled
	03/09/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/13/2004	--	--	--	--	--	--	Not Sampled
	07/12/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	11/29/2004	--	--	--	--	--	--	
	01/26/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/04/2005	--	--	--	--	--	--	
MW-9A	03/25/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	
	05/01/2003	--	--	--	--	--	--	Not Sampled
	07/15/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	
	12/24/2003	--	--	--	--	--	--	Not Sampled
	03/09/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/13/2004	--	--	--	--	--	--	Not Sampled
	07/12/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	11/29/2004	--	--	--	--	--	--	
	01/26/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/04/2005	--	--	--	--	--	--	
MW-10	03/25/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	
	05/01/2003	--	--	--	--	--	--	Not Sampled
	07/15/2003	<200	<40	<1.0	<2.0	<2.0	<2.0	
	12/24/2003	--	--	--	--	--	--	Not Sampled
	03/09/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	04/13/2004	--	--	--	--	--	--	Not Sampled
	07/12/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	
	11/29/2004	--	--	--	--	--	--	
	01/26/2005	<100	<20	<0.50	<1.0	<1.0	<1.0	

Table 2

Fuel Oxygenates Analytical Data

ARCO Service Station No. 4936

1010 Fourth Street, Santa Rosa, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	Comments
MW-10	04/04/2005	--	--	--	--	--	--	

Table 2

Fuel Oxygenates Analytical Data ARCO Service Station No. 4936 1010 Fourth Street, Santa Rosa, CA

Notes:

$\mu\text{g/L}$ = micrograms per liter

-- = not measured or analyzed

< = analyte not detected at or above the reporting limit

TBA= tert-butyl alcohol

MTBE= Methyl tert-butyl ether

DIPE= Di-isopropyl ether

ETBE = Ethyl tert butyl ether

TAME= tert-amyl methyl ether

Table 3

Groundwater Gradient Data
ARCO Service Station No. 4936
1010 Fourth Street, Santa Rosa, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
3/21/2000	S to SW	0.005
4/24/2000	S to SW	0.005
8/21/2000	SW	0.002
11/22/2000	SW	0.0019
3/21/2001	SW	0.003
6/28/2001	SW	0.003
9/18/2001	SW	0.001
12/28/2001	SW	0.001
3/27/2002	SW	0.003
6/19/2002	SW	0.009
9/12/2002	S	0.012
12/11/2002	S to SW	0.002
3/25/2003	S to SW	0.007
5/1/2003	SW to SE	0.006
7/15/2003	Variable to SW	0.007
12/24/2003	Variable to SW	0.006 to 0.014
3/9/2004	S to SW	0.005
4/13/2004	Variable	0.015 to 0.019
7/12/2004	Variable	0.004 to 0.006
11/29/2004	South	0.004
1/26/2005	South	0.009
4/4/2005	South	0.005

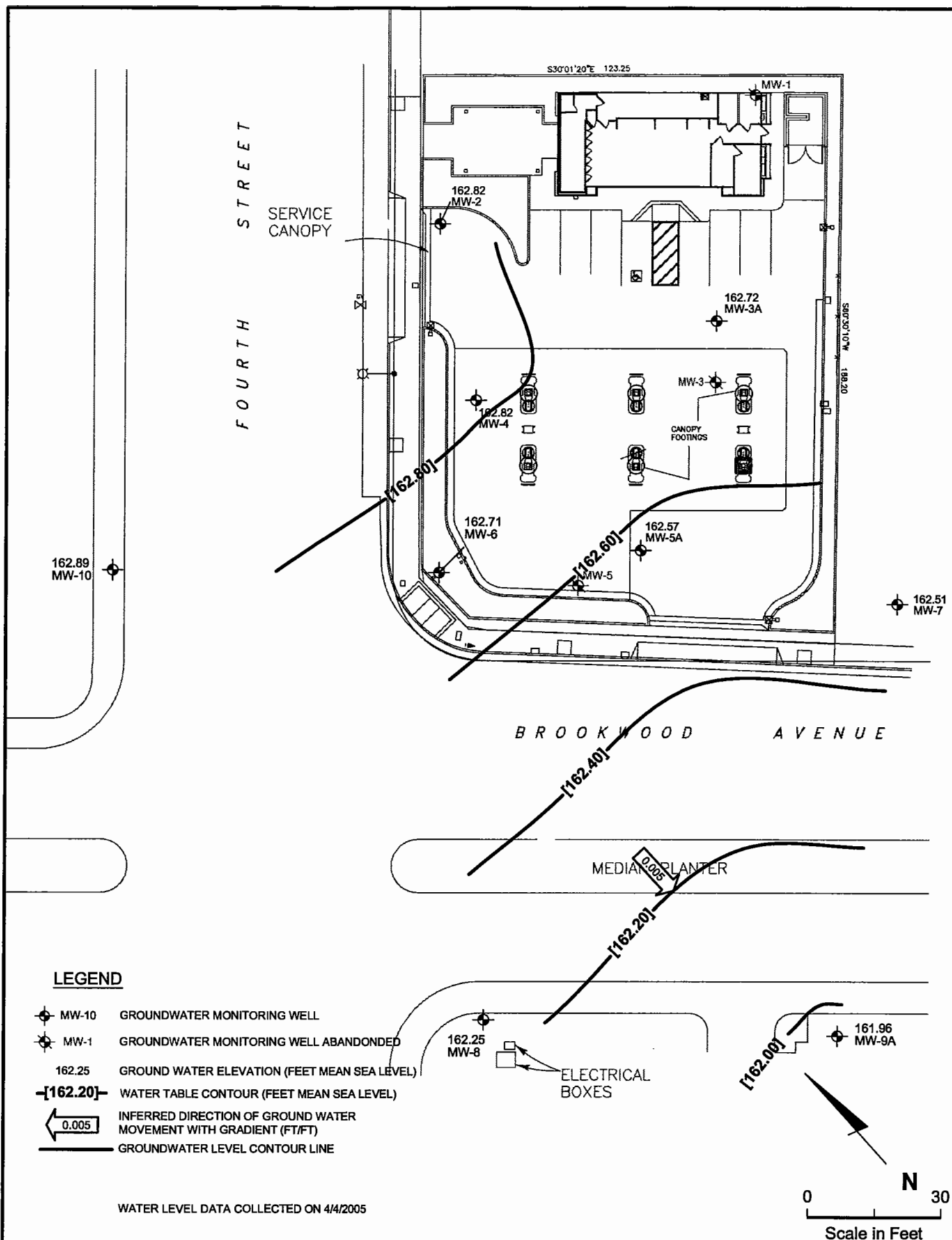
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PLOT BY: RTAYLOR - May 20, 2005 - 11:59:58am

IMAGES:

XREFS:

DRAWING: 4936-040705_2Q05-F1-gwcont.dwg
 DRAWING: U:\Projects\BP - Arco\Project Sites\04936\2ndQ_05



URS

1550 Humboldt Road, Ste. 2
 Chico, CA 95928
 TEL: (530) 893-9675
 FAX: (530) 893-9682

GROUNDWATER ELEVATION CONTOURS

ARCO Service Station No. 4936
 1010 Fourth Street
 Santa Rosa, California

ARCO Quarterly Groundwater
 Monitoring Report - 2nd Quarter 2005

FIGURE

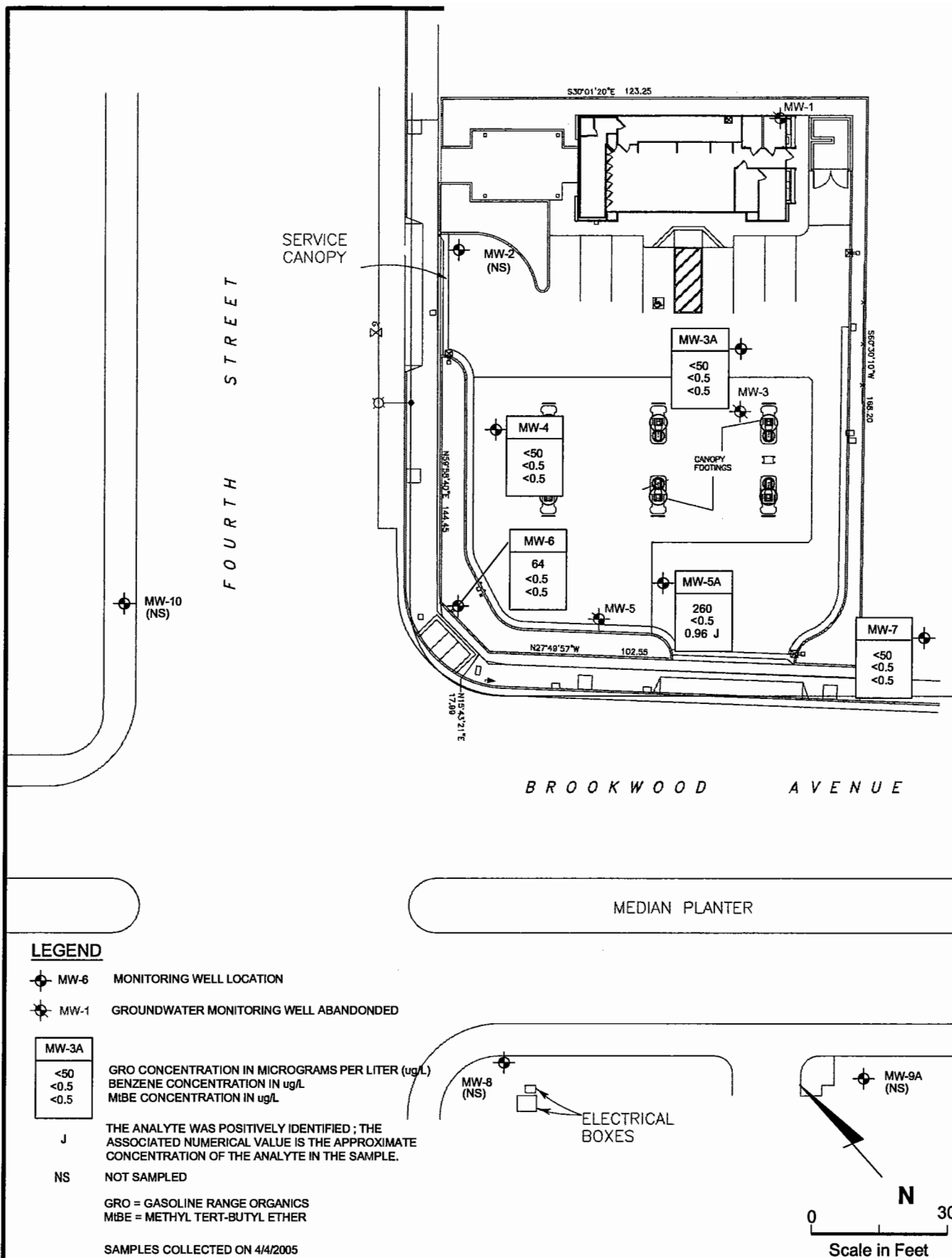
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PLOT BY: RTAYLOR - May 20, 2005 - 12:01:38pm

IMAGES:

XREFS:

DRAWING: 4936-040705_2Q05-F2-SUM.dwg
 DRAWING: U:\Projects\BP - Arco\Project Sites\04936\2ndQ_05



URS

1550 Humboldt Road, Ste. 2
 Chico, CA 95928
 TEL: (530) 893-9675
 FAX: (530) 893-9682

GROUNDWATER ANALYTICAL SUMMARY

ARCO Service Station 4936
 1010 Fourth Street
 Santa Rosa, California

ARCO Quarterly Groundwater
 Monitoring Report - 2nd Quarter 2005

FIGURE

2

APPENDIX A

Field and Laboratory Procedures

APPENDIX A

FIELD AND LABORATORY PROCEDURES

Sampling Procedures

Sampling equipment is thoroughly cleaned prior to each sample. The sampling procedure for each well includes measuring the water level and checking for the presence of separate-phase hydrocarbons (SPH), using either an electronic indicator and a clear Teflon® bailer or an oil-water interface probe. Wells not containing SPH that do not have submerged screens are then sampled without purging. Wells that have submerged screens are purged of approximately three casing volumes of water (or to dryness) using a centrifugal pump, gas displacement pump, or bailer. The equipment and purging method used for the current sampling event are noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored in order to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially recover. Groundwater samples (both purge and no-purge) are collected using a Teflon® bailer, placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to a California state-certified laboratory.

Decontamination Procedures

Prior to sampling each well, reels and pumps are decontaminated with a steam cleaner. Sensitive equipment such as the water level sounder are sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water. All water used for equipment decontamination is collected and contained in a truck-mounted water tank.

Laboratory Procedures

The groundwater samples were analyzed for the presence of benzene, toluene, ethylbenzene, total xylenes (BTEX) and fuel oxygenates (including MtBE) using EPA Method 8260B. The presence of GRO was analyzed using EPA Method 8015B. The methods of analysis for the groundwater samples are documented in the laboratory analytical report. The laboratory analytical report, chain-of-custody documentation, and field data sheets are presented as Appendix B.

Purge and Rinsate Water Disposal

Water generated during well sampling and equipment cleaning is pumped into a truck-mounted water tank. The water is transported to Blain Tech Services holding facility in Roseville, California, for temporary storage. Dillard Environmental Services then transports the water to the Altamont Landfill and Resource Recovery Facility in Altamont, California for disposal.

APPENDIX B

Laboratory Analytical Reports, Chain- of-Custody Documentation, and Field Data Sheets



21 April, 2005

Scott Dressler
URS Corp - Chico
1550 Humboldt Rd, Suite 2
Chico, CA 95928

RE: Arco Site 4936, Santa Rosa, CA
Work Order: P504093

Enclosed are the results of analyses for samples received by the laboratory on 04/08/05 12:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robert Butler
Project Manager

CA ELAP Certificate #2374

URS Corp - Chico
1550 Humboldt Rd, Suite 2
Chico CA, 95928Project: Arco Site 4936, Santa Rosa, CA
Project Number: G09K2-0365
Project Manager: Scott DresslerP504093
Reported:
04/21/05 10:16**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-3A	P504093-01	Water	04/04/05 10:35	04/08/05 12:50
MW-4	P504093-02	Water	04/04/05 11:00	04/08/05 12:50
MW-5A	P504093-03	Water	04/04/05 11:45	04/08/05 12:50
MW-6	P504093-04	Water	04/04/05 11:20	04/08/05 12:50
MW-7	P504093-05	Water	04/04/05 10:10	04/08/05 12:50
TB-4936-04042005	P504093-06	Water	04/04/05 00:00	04/08/05 12:50

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with intact custody seals.

MS/MSD is reported for all batches in which the laboratory received sufficient sample volume to perform the MS/MSD analysis. In the case where there was insufficient sample volume received for all samples associated in the batch, LCS/LCSD is analyzed in place of the MS/MSD.

URS Corp - Chico
1550 Humboldt Rd, Suite 2
Chico CA, 95928

Project: Arco Site 4936, Santa Rosa, CA
Project Number: G09K2-0365
Project Manager: Scott Dressler

P504093
Reported:
04/21/05 10:16

Purgeable Hydrocarbons by EPA 8015B Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3A (P504093-01) Water Sampled: 04/04/05 10:35 Received: 04/08/05 12:50									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	5040107	04/12/05	04/12/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		94 %	80-110		"	"	"	"	
MW-4 (P504093-02) Water Sampled: 04/04/05 11:00 Received: 04/08/05 12:50									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	5040107	04/12/05	04/13/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		90 %	80-110		"	"	"	"	
MW-5A (P504093-03) Water Sampled: 04/04/05 11:45 Received: 04/08/05 12:50									
Gasoline Range Organics (C4-C12)	260	50	ug/l	1	5040107	04/12/05	04/13/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		97 %	80-110		"	"	"	"	
MW-6 (P504093-04) Water Sampled: 04/04/05 11:20 Received: 04/08/05 12:50									
Gasoline Range Organics (C4-C12)	64	50	ug/l	1	5040107	04/12/05	04/13/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		92 %	80-110		"	"	"	"	
MW-7 (P504093-05) Water Sampled: 04/04/05 10:10 Received: 04/08/05 12:50									
Gasoline Range Organics (C4-C12)	ND	50	ug/l	1	5040107	04/12/05	04/13/05	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		89 %	80-110		"	"	"	"	

URS Corp - Chico
1550 Humboldt Rd, Suite 2
Chico CA, 95928

Project: Arco Site 4936, Santa Rosa, CA
Project Number: G09K2-0365
Project Manager: Scott Dressler

P504093
Reported:
04/21/05 10:16

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-3A (P504093-01) Water Sampled: 04/04/05 10:35 Received: 04/08/05 12:50

Tert-amyl methyl ether	ND	1.0	ug/l	1	5040124	04/14/05	04/14/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %	84-122		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		106 %	74-135		"	"	"	"	
Surrogate: Toluene-d8		108 %	84-119		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		118 %	86-119		"	"	"	"	

MW-4 (P504093-02) Water Sampled: 04/04/05 11:00 Received: 04/08/05 12:50

Tert-amyl methyl ether	ND	1.0	ug/l	1	5040124	04/14/05	04/14/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		101 %	84-122		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		108 %	74-135		"	"	"	"	
Surrogate: Toluene-d8		109 %	84-119		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		119 %	86-119		"	"	"	"	

URS Corp - Chico
1550 Humboldt Rd, Suite 2
Chico CA, 95928

Project: Arco Site 4936, Santa Rosa, CA
Project Number: G09K2-0365
Project Manager: Scott Dressler

P504093
Reported:
04/21/05 10:16

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-5A (P504093-03) Water Sampled: 04/04/05 11:45 Received: 04/08/05 12:50

Tert-amyl methyl ether	ND	1.0	ug/l	1	5040124	04/14/05	04/14/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethylbenzene	0.74	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	0.96	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		99 %	84-122		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	74-135		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		110 %	84-119		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		120 %	86-119		"	"	"	"	LH

MW-6 (P504093-04) Water Sampled: 04/04/05 11:20 Received: 04/08/05 12:50

Tert-amyl methyl ether	ND	1.0	ug/l	1	5040124	04/14/05	04/14/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		98 %	84-122		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %	74-135		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		110 %	84-119		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		120 %	86-119		"	"	"	"	LH

URS Corp - Chico
1550 Humboldt Rd, Suite 2
Chico CA, 95928

Project: Arco Site 4936, Santa Rosa, CA
Project Number: G09K2-0365
Project Manager: Scott Dressler

P504093
Reported:
04/21/05 10:16

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (P504093-05) Water Sampled: 04/04/05 10:10 Received: 04/08/05 12:50									
Tert-amyl methyl ether	ND	1.0	ug/l	1	5040124	04/14/05	04/14/05	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
Tert-butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		98 %	84-122		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	74-135		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		107 %	84-119		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		118 %	86-119		"	"	"	"	

URS Corp - Chico
1550 Humboldt Rd, Suite 2
Chico CA, 95928

Project: Arco Site 4936, Santa Rosa, CA
Project Number: G09K2-0365
Project Manager: Scott Dressler

P504093
Reported:
04/21/05 10:16

Purgeable Hydrocarbons by EPA 8015B - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5040107 - EPA 5030B, waters / EPA 8015B-VOA

Blank (5040107-BLK1)

Prepared & Analyzed: 04/12/05

Gasoline Range Organics (C4-C12) ND 50 ug/l

Surrogate: 4-Bromofluorobenzene 287 " 300 96 80-110

Laboratory Control Sample (5040107-BS1)

Prepared & Analyzed: 04/12/05

Gasoline Range Organics (C4-C12) 2470 50 ug/l 2750 90 60.9-120

Surrogate: 4-Bromofluorobenzene 301 " 300 100 80-110

Matrix Spike (5040107-MS1)

Source: P504093-01

Prepared & Analyzed: 04/12/05

Gasoline Range Organics (C4-C12) 2430 50 ug/l 2750 ND 88 60.9-120

Surrogate: 4-Bromofluorobenzene 305 " 300 102 80-110

Matrix Spike Dup (5040107-MSD1)

Source: P504093-01

Prepared & Analyzed: 04/12/05

Gasoline Range Organics (C4-C12) 2390 50 ug/l 2750 ND 87 60.9-120 2 20

Surrogate: 4-Bromofluorobenzene 302 " 300 101 80-110

URS Corp - Chico
1550 Humboldt Rd, Suite 2
Chico CA, 95928

Project: Arco Site 4936, Santa Rosa, CA
Project Number: G09K2-0365
Project Manager: Scott Dressler

P504093
Reported:
04/21/05 10:16

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5040124 - EPA 5030B waters / EPA 8260B

Blank (5040124-BLK1)

Prepared & Analyzed: 04/14/05

Tert-amyl methyl ether	ND	1.0	ug/l							
Benzene	ND	0.50	"							
Tert-butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	1.0	"							
Ethanol	ND	100	"							
Ethylbenzene	ND	0.50	"							
Ethyl tert-butyl ether	ND	1.0	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
<i>Surrogate: Dibromofluoromethane</i>	<i>5.06</i>		<i>"</i>	<i>5.00</i>		<i>101</i>	<i>84-122</i>			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.23</i>		<i>"</i>	<i>5.00</i>		<i>105</i>	<i>74-135</i>			
<i>Surrogate: Toluene-d8</i>	<i>5.36</i>		<i>"</i>	<i>5.00</i>		<i>107</i>	<i>84-119</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>5.89</i>		<i>"</i>	<i>5.00</i>		<i>118</i>	<i>86-119</i>			

Laboratory Control Sample (5040124-BS1)

Prepared & Analyzed: 04/14/05

Tert-amyl methyl ether	4.66	1.0	ug/l	5.00		93	78-117			
Benzene	4.53	0.50	"	5.00		91	81-118			
Tert-butyl alcohol	95.1	20	"	100		95	60-147			
Di-isopropyl ether	4.94	1.0	"	5.00		99	70-125			
Ethanol	187	100	"	100		187	55-200			
Ethylbenzene	4.83	0.50	"	5.00		97	89-122			
Ethyl tert-butyl ether	4.65	1.0	"	5.00		93	71-120			
Methyl tert-butyl ether	4.71	0.50	"	5.00		94	70-122			
Toluene	4.56	0.50	"	5.00		91	84-119			
Xylenes (total)	14.8	0.50	"	15.0		99	86-132			
<i>Surrogate: Dibromofluoromethane</i>	<i>5.11</i>		<i>"</i>	<i>5.00</i>		<i>102</i>	<i>84-122</i>			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.13</i>		<i>"</i>	<i>5.00</i>		<i>103</i>	<i>74-135</i>			
<i>Surrogate: Toluene-d8</i>	<i>5.47</i>		<i>"</i>	<i>5.00</i>		<i>109</i>	<i>84-119</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>5.91</i>		<i>"</i>	<i>5.00</i>		<i>118</i>	<i>86-119</i>			

URS Corp - Chico
1550 Humboldt Rd, Suite 2
Chico CA, 95928

Project: Arco Site 4936, Santa Rosa, CA
Project Number: G09K2-0365
Project Manager: Scott Dressler

P504093
Reported:
04/21/05 10:16

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5040124 - EPA 5030B waters / EPA 8260B

Matrix Spike (5040124-MS1)	Source: P504057-04			Prepared & Analyzed: 04/14/05						
Tert-amyl methyl ether	4.84	1.0	ug/l	5.00	ND	97	78-117			
Benzene	4.69	0.50	"	5.00	ND	94	81-118			
Tert-butyl alcohol	97.0	20	"	100	ND	97	60-147			
Di-isopropyl ether	5.07	1.0	"	5.00	ND	101	70-125			
Ethanol	140	100	"	100	ND	140	55-200			
Ethylbenzene	4.90	0.50	"	5.00	ND	98	89-122			
Ethyl tert-butyl ether	4.81	1.0	"	5.00	ND	96	71-120			
Methyl tert-butyl ether	4.99	0.50	"	5.00	0.12	97	70-122			
Toluene	4.70	0.50	"	5.00	ND	94	84-119			
Xylenes (total)	15.0	0.50	"	15.0	ND	100	86-132			
<i>Surrogate: Dibromofluoromethane</i>	<i>5.13</i>		<i>"</i>	<i>5.00</i>		<i>103</i>	<i>84-122</i>			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.26</i>		<i>"</i>	<i>5.00</i>		<i>105</i>	<i>74-135</i>			
<i>Surrogate: Toluene-d8</i>	<i>5.49</i>		<i>"</i>	<i>5.00</i>		<i>110</i>	<i>84-119</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>5.83</i>		<i>"</i>	<i>5.00</i>		<i>117</i>	<i>86-119</i>			

Matrix Spike Dup (5040124-MSD1)	Source: P504057-04			Prepared & Analyzed: 04/14/05						
Tert-amyl methyl ether	4.88	1.0	ug/l	5.00	ND	98	78-117	0.8	20	
Benzene	4.51	0.50	"	5.00	ND	90	81-118	4	20	
Tert-butyl alcohol	102	20	"	100	ND	102	60-147	5	20	
Di-isopropyl ether	5.03	1.0	"	5.00	ND	101	70-125	0.8	20	
Ethanol	127	100	"	100	ND	127	55-200	10	20	
Ethylbenzene	4.73	0.50	"	5.00	ND	95	89-122	4	20	
Ethyl tert-butyl ether	4.78	1.0	"	5.00	ND	96	71-120	0.6	20	
Methyl tert-butyl ether	5.28	0.50	"	5.00	0.12	103	70-122	6	20	
Toluene	4.55	0.50	"	5.00	ND	91	84-119	3	20	
Xylenes (total)	14.7	0.50	"	15.0	ND	98	86-132	2	20	
<i>Surrogate: Dibromofluoromethane</i>	<i>5.22</i>		<i>"</i>	<i>5.00</i>		<i>104</i>	<i>84-122</i>			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.21</i>		<i>"</i>	<i>5.00</i>		<i>104</i>	<i>74-135</i>			
<i>Surrogate: Toluene-d8</i>	<i>5.50</i>		<i>"</i>	<i>5.00</i>		<i>110</i>	<i>84-119</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>5.89</i>		<i>"</i>	<i>5.00</i>		<i>118</i>	<i>86-119</i>			

URS Corp - Chico 1550 Humboldt Rd, Suite 2 Chico CA, 95928	Project: Arco Site 4936, Santa Rosa, CA Project Number: G09K2-0365 Project Manager: Scott Dressler	P504093 Reported: 04/21/05 10:16
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Notes and Definitions

LH Surrogate recovery above the acceptance limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



Chain of Custody Record

Page 1 of 1

Project Name: ARCO 4936 GW Quarterly
BP BU/AR Region/Entos Segment: BP > Americas > West Coast > Retail > WOCBU > CA > 4936 Historical BL

State or Lead Regulatory Agency: Regional Water Quality Control Board-North Coast Region
Requested Due Date (mm/dd/yy): 5/25/05

On-site Time:	7:15	Temp:	68°
Off-site Time:	12:15	Temp:	
Sky Conditions:	clear		
Meteorological Events:			
Wind Speed:		Direction:	

Lab Name: Sequoia	BP/AR Facility No.: 4936	Consultant/Contractor: URS
Address: 1455 N. McDowell Blvd, Suite D	BP/AR Facility Address: 1010 Fourth Street, Santa Rosa, CA	Address: 2870 Gateway Oaks Drive, Suite 300
Petaluma, CA 94954	Site Lat/Long: N/A	Sacramento, CA 95833
Lab PM: Robert Butler	California Global ID No.: T0609700609	Consultant/Contractor Project No.: 3846515
Tele/Fax: 707.792.1865 / 707.792.0342	Entos Project No.: G0C50-0002	Consultant/Contractor P.M.: Scott Dressler
BP/AR PM Contact: Paul Supple	Provision or RCOP: Provision	Tele/Fax: 530.893.9675 /
Address: P.O. Box 6549	Phase/WBS: 04 - Mon/Remed by Natural Attenuation	Report Type & QC Level: Level 1 with EDF
Moraga, CA 94570	Sub Phase/Task: 03 - Analytical	E-mail BDD To: Denise.Yee@unscorp.com
Tele/Fax: 925.299.8891 / 925.299.8872	Cost Element: 05 - Subcontracted Costs	Invoice to: Atlantic Richfield Co.

Lab Bottle Order No:				Matrix		Requested Analysis										Sample Point Lat/Long and Comments							
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air	Laboratory No.	No. of Containers					Preservative										
1	MW-3A	1035	4/4	✓			PS040931	6					✓				✓						
2	MW-4	1100		✓				2	6				✓				✓						
3	MW-5A	1145		✓				3	6				✓				✓						
4	MW-6	1120		✓				4	6				✓				✓						
5	MW-7	1010		✓				5	6				✓				✓						
6	TS-4936-01042005		4/4	✓				6	2				COOLER CUSTODY SEALS INTACT										On Hold
7													NO INTACT										
8													COOLER TEMPERATURE 31 °C										
9																							
10																							
Sampler's Name: R. Sammartino				Relinquished By / Affiliation				Date		Time		Accepted By / Affiliation				Date		Time					
Sampler's Company: R/Prime Tech				R. Sammartino				4/18/05		12:15		R. Sammartino				4/18/05		12:15					
Shipment Date:				4/18/05																			
Shipment Method:				4/18/05																			
Shipment Tracking No:																							

Custody Seals In Place Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temp Blank Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Cooler Temperature on Receipt <input type="checkbox"/> °F/C <input checked="" type="checkbox"/>	Trip Blank Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Distribution: White Copy - Laboratory / Yellow Copy - BP / Atlantic Richfield Co. / Pink Copy - Consultant/Contractor			
BP COC Rev. 4 10/1/04			

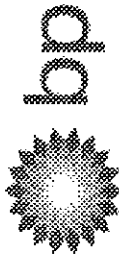
CLIENT NAME: WKS
REC. BY (PRINT) WKS
WORKORDER: 1564093

DATE Received at Lab: 4-8-05
TIME Received at Lab: 1000
LOG IN DATE: 4-11-05

CIRCLE THE APPROPRIATE RESPONSE

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	Dash #	CLIENT ID	CONTAINER DESCRIPTION	pH	SAMPLE MATRIX	DATE SAMPLED	CONDITION (ETC.)
1. Custody Seal(s) Present / Absent <u>Intact / Broken *</u>			MW-3A	<u>expv</u>		w	4-7	
2. Chain-of-Custody <u>Present / Absent *</u>			SA					
3. Airbill: <u>Airbill / Sticker</u> Present / Absent			TS-49360407005	2 x p				
4. Airbill #: D100/00CT087678								
5. Sample Labels: <u>Present / Absent</u>								
6. Sample IDs: <u>Listed / Not Listed</u> on Chain-of-Custody								
7. Sample Condition: <u>Intact / Broken * / Leaking *</u>								
8. Does information on custody reports, traffic reports, and sample labels agree?								
9. Sample received within hold time:								
10. Proper Preservatives used:								
11. Temperature Blank Received?								
12. Temp Rec. at Lab: (Acceptance range for samples requiring thermal pres.: +4/-2°C)								
13. Samples collected more than 4 days ago?								

Page _____ of _____



Chain of Custody Record

Project Name: ARCO 4936 GW Quarterly
BP BU/AR Region/Enfos Segment: BP > Americas > West Coast > Retail > WCBU > CA > 4936 Historical BL
State or Lead Regulatory Agency: Regional Water Quality Control Board-North Coast Region
Requested Due Date (mm/dd/yy): 5/25/05

On-site Time: 7/5 Temp: 62.8°
Off-site Time: 12/5 Temp:
Sky Conditions: CLC/L
Meteorological Events:
Wind Speed: Direction:

Lab Name: Sequoia		BP/AR Facility No.: 4936		Consultant/Contractor: URS																	
Address: 1455 N. McDowell Blvd., Suite D		BP/AR Facility Address: 1010 Fourth Street, Santa Rosa, CA		Address: 2870 Gateway Oaks Drive, Suite 300																	
Petaling, CA 94954		Site Lat/Long: N/A		Sacramento, CA 95833																	
Lab PM: Robert Butler		California Global ID No.: T0609700609		Consultant/Contractor Project No.: 38466515																	
Tel/Fax: 707.792.1865 / 707.792.0342		Enfos Project No.: GOC50-0002		Consultant/Contractor PM: Scott Dressler																	
BP/AR PM Contact: Paul Supple		Provision or RCOP: Provision		Tele/Fax: 530.893.9675 /																	
Address: P.O. Box 6549		Phase/WBS: 04 - Mon/Remed by Natural Attenuation		Report Type & QC Level: Level 1 with EDF																	
Moraga, CA 94570		Sub Phase/Task: 03 - Analytical		E-mail EDD To: Denise Yee@urscorp.com																	
Tel/Fax: 925.299.8891 / 925.299.8872		Cost Element: 05 - Subcontracted Costs		Invoice to: Atlantic Richfield Co.																	
Lab Bottle Order No:		Matrix		Requested Analysis																	
Item No.	Sample Description	Time	Date	Soil/Solid	Water/Liquid	Air	Laboratory No.	No. of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO / BTEX (8260)	DRO (8015)	Ethanol (8260)	OxyGenates(5) (8260)	1,2-DCA (8260)	EDB (8260)	Sample Point Lat/Long and Comments	
1	MW-3A	1035	4/4	✓	✓	✓		6				✓	✓	✓	✓	✓	✓	✓	✓		
2	MW-4	1100		✓	✓	✓		6			✓	✓		✓	✓	✓	✓	✓	✓		
3	MW-5A	1145		✓	✓	✓		6			✓	✓		✓	✓	✓	✓	✓	✓		
4	MW-6	1120		✓	✓	✓		6			✓	✓		✓	✓	✓	✓	✓	✓		
5	MW-7	1010		✓	✓	✓		6			✓	✓		✓	✓	✓	✓	✓	✓		
6	TB-1936-04042005		4/4	✓	✓	✓		2													On Hold
7																					
8																					
9																					
10																					
Sampler's Name: R. Supple		Relinquished By / Affiliation		Date		Time		Accepted By / Affiliation		Date		Time		Sample Point Lat/Long and Comments							
Sampler's Company: Enviro Tech		R. Supple																			
Shipment Date:																					
Shipment Method:																					
Shipment Tracking No:																					
Special Instructions:																					
Custody Seals In Place Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Temp Blank Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Cooler Temperature on Receipt <input type="checkbox"/> °F/C <input checked="" type="checkbox"/>		Trip Blank Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>															
Distribution: White Copy - Laboratory / Yellow Copy - BP/Atlantic Richfield Co. / Pink Copy - Consultant/Contractor														BP COC Rev. 4 10/1/04							

BP GEM OIL COMPANY TYPE A BILL OF LADING

SOURCE RECORD BILL OF LADING FOR NON-
HAZARDOUS PURGEWATER RECOVERED FROM
GROUNDWATER WELLS AT BP GEM OIL COMPANY
FACILITIES IN THE STATE OF CALIFORNIA. THE NON-
HAZARDOUS PURGE- WATER WHICH HAS BEEN
RECOVERED FROM GROUND- WATER WELLS IS
COLLECTED BY THE CONTRACTOR, MADE UP INTO
LOADS OF APPROPRIATE SIZE AND HAULED BY
DILLARD ENVIRONMENTAL TO THE ALTAMONT
LANDFILL AND RESOURCE RECOVERY FACILITY IN
LIVERMORE, CALIFORNIA.

The contractor performing this work is RLAINTE TECH
SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA
95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is
authorized by BP GEM OIL COMPANY to recover, collect,
apportion into loads the Non-Hazardous Well Purgewater that is
drawn from wells at the BP GEM Oil Company facility indicated
below and deliver that purgewater to BTS. Transport routing of
the Non-Hazardous Well Purgewater may be direct from one BP
GEM facility to the designated destination point; from one BP
GEM facility to the designated destination point via another BP
GEM facility; from a BP GEM facility to the designated
destination point via the contractor's facility, or any combination
thereof. The Non-Hazardous Well Purgewater is and remains the
property of BP GEM Oil Company.

This Source Record BILL OF LADING was initiated to
cover the recovery of Non-Hazardous Well Purgewater from wells
at the BP GEM Oil Company facility described below:

Station #

4936

Station Address

1010 4th St. Santa Rosa

Total Gallons Collected From Groundwater Monitoring Wells:

90

added equip.
rinse water

2

any other
adjustments

TOTAL GALS.
RECOVERED

92

loaded onto
BTS vehicle #

50

BTS event #

050404-B51

time

date

1600

4 / 4 / 05

signature

[Signature]

REC'D AT

time

date

BTS SAC

1700

4 / 7 / 05

unloaded by

signature

[Signature]

WELLHEAD INSPECTION CHECKLIST

Page 1 of 1

Client ALCO Date 4-4-05
 Site Address 1010 4th St Santa Rosa
 Job Number 050404-BS1 Technician B. Summerset

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
mw-2	✓							
mw-3A		✓						
mw-4				X	X			
mw-5A	✓							
mw-6	✓							
mw-7	✓							
mw-8		✓						
mw-9A		✓						
mw-10	✓							

NOTES: _____

WELL GAUGING DATA

Project # 050404-BS1

Date 4-4-05

Client Arco

Site 1010 Fourth St, Santa Rosa

[illegible]

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050404-BS1	Station # 4936
Sampler: B. Summerset	Date: 04-04-05
Well I.D.: mw-3A	Well Diameter: ② 3 4 6 8
Total Well Depth: 29.83	Depth to Water: 14.37
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>PSI</u> HACH

15.46

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Purge Method:

☒ Bailer
☒ Disposable Bailer
☐ Positive Air Displacement
☐ Electric Submersible
☐ Extraction Pump
 Other: _____

Sampling Method:

☒ Bailer
☒ Disposable Bailer
☐ Extraction Port
 Other: _____

Top of Screen: _____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

2.5	X	3	=	7.5	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μ S)	Gals. Removed	Observations
1028	60.6	6.8	491	2.5	brown
1030	63.5	6.5	491	5.0	brown
1032	64.0	6.5	489	7.5	brown

Did well dewater? Yes ☒ No

Gallons actually evacuated: 7.5

Sampling Time: 1035

Sampling Date: 4-4-05

Sample I.D.: mw-3A

Laboratory: Pace Sequoia Other _____

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050404 - BS1</u>	Station # <u>4936</u>
Sampler: <u>B. Summsett</u>	Date: <u>04-04-05</u>
Well I.D.: <u>mw-4</u>	Well Diameter: 2 3 <u>(4)</u> 6 8
Total Well Depth: <u>26.85</u>	Depth to Water: <u>13.58</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>Ice</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

13.27

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Purge Method:

☐ Bailer
☐ Disposable Bailer
☐ Positive Air Displacement
☒ Electric Submersible
☐ Extraction Pump
 Other: _____

Sampling Method: ☒ Bailer
☐ Disposable Bailer
☐ Extraction Port
 Other: _____

Top of Screen: _____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>8.7</u>	x	<u>3</u>	=	<u>25.9</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1054	63.3	6.7	529	4.0	
1055	64.3	6.4	527	18.0	
1057	64.9	6.4	527	26.0	clear

Did well dewater? Yes ☒ No ☐ Gallons actually evacuated: 26.0

Sampling Time: 1100 Sampling Date: 4-4-05

Sample I.D.: mw-4 Laboratory: Pace Sequoia Other _____

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	3.9 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050404-B51</u>	Station # <u>4936</u>
Sampler: <u>B. Summerville</u>	Date: <u>4-4-05</u>
Well I.D.: <u>mw-SA</u>	Well Diameter: <u>②</u> 3 4 6 8
Total Well Depth: <u>28.26</u>	Depth to Water: <u>1402</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>VSI</u> HACH

14.24

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Purge Method:

☐ Bailer
☒ Disposable Bailer
☐ Positive Air Displacement
☐ Electric Submersible
☐ Extraction Pump
 Other: _____

Sampling Method:

☐ Bailer
☒ Disposable Bailer
☐ Extraction Port
 Other: _____

Top of Screen: _____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>2.3</u>	X	<u>3</u>	=	<u>6.9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1138	64.0	6.7	540	2.5	
1141	64.6	6.5	539	5.0	
1444	65.3	6.5	545	7.0	

Did well dewater? Yes ☒ No

Gallons actually evacuated: 7.0

Sampling Time: 1145

Sampling Date: 3 4-4-05

Sample I.D.: mw-SA

Laboratory: Pace Sequoia Other _____

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.0 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 050404-B51	Station #: 4936
Sampler: B. Summerett	Date: 4-4-05
Well I.D.: mw-6	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 25.63	Depth to Water: 13.51
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVO</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

12.12

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Purge Method: ☐ Bailer ☐ Disposable Bailer ☐ Positive Air Displacement ☒ Electric Submersible ☐ Extraction Pump Other: _____

Sampling Method: ☐ Bailer ☒ Disposable Bailer ☐ Extraction Port Other: _____

Top of Screen: _____ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

7.9	X	3	=	23.6	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1114	61.4	6.7	534	8.0	clear
1116	63.2	6.5	544	16.0	clear
1117	64.1	6.4	547	24.0	clear

Did well dewater? Yes ☒ No ☐ Gallons actually evacuated: 24.0

Sampling Time: 1120 Sampling Date: 4-4-05

Sample I.D.: mw-6 Laboratory: Pace Sequoia Other: _____

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.5 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	7 mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>050404-B51</u>	Station # <u>4936</u>
Sampler: <u>B. Summerset</u>	Date: <u>4-4-05</u>
Well I.D.: <u>mw-7</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: <u>26.31</u>	Depth to Water: <u>13.43</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>EVO</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

12.8%

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Purge Method: ☐ Bailer ☐ Disposable Bailer ☐ Positive Air Displacement ☒ Electric Submersible ☐ Extraction Pump
Other: _____

Sampling Method: ☐ Bailer ☒ Disposable Bailer ☐ Extraction Port
Other: _____

Top of Screen: _____ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

<u>8.4</u>	x	<u>3</u>	=	<u>25.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1006	63.7	6.0	514	8.5	
1008	64.3	6.2	510	17.0	
1009	65.0	6.3	508	25.5	

Did well dewater? Yes ☒ No ☐ Gallons actually evacuated: 25.5

Sampling Time: 1010 Sampling Date: 4-4-05

Sample I.D.: mw-7 Laboratory: Pace Sequoia Other _____

Analyzed for: GRO BTEX MTBE DRO Oxy's 1,2-DCA EDB Ethanol Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

APPENDIX C

GeoTracker Upload Confirmation

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Confirmation Number: **1791489839**

Date/Time of Submittal: **5/24/2005 4:24:30 PM**

Facility Global ID: **T0609700609**

Facility Name: **ARCO #4936**

Submittal Title: **Groundwater Monitoring Report 2nd Quarter 2005**

Submittal Type: **GW Monitoring Report**

Click [here](#) to view the detections report for this upload.

ARCO #4936
1010 FOURTH STREET
SANTA ROSA, CA 95404

Regional Board (lead agency) - Case #: 1TSR098
NORTH COAST RWQCB (REGION 1) - (JAT)
Local Agency
SANTA ROSA, CITY OF

CONF #	TITLE	QUARTER
1791489839	Groundwater Monitoring Report 2nd Quarter 2005	Q2-2005
SUBMITTED BY	SUBMIT DATE	STATUS
Denise Yee	5/24/2005	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	5
# FIELD POINTS WITH DETECTIONS	2
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	1
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	8260FAB,SW8015B
TESTED FOR REQUIRED ANALYTES?	N
MISSING PARAMETERS NOT TESTED:	
- 8260FAB REQUIRES DCA12 TO BE TESTED	
- 8260FAB REQUIRES EDB TO BE TESTED	
- SW8015B REQUIRES DCA12 TO BE TESTED	
- SW8015B REQUIRES EDB TO BE TESTED	
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0

DO ALL BATCHES WITH THE 8021 /8260 SERIES INCLUDE THE FOLLOWING?

LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	N
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	N
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	N

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

<u>SAMPLE</u>	<u>COLLECTED</u>	<u>DETECTIONS > REPD</u>
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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2005

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